

**CLAIMS**

What is claimed is:

1. An apparatus to observe an object within a visual blind spot of a motor vehicle  
5 using a mirror, the apparatus comprising:  
at least one motor mechanically coupled to the mirror, wherein a position of the  
mirror can be adjusted by the at least one motor; and  
an object detector that can detect objects within a visual blind spot of a vehicle,  
wherein the object detector is operable to provide a detection signal to the at  
10 least one motor to adjust a position of the mirror to provide a view of the blind  
spot of the vehicle to a driver of the vehicle.

2. The apparatus of claim 1, further comprising a memory that can pre-store a setting of the at least one motor that provides a position of the mirror giving a view of the blind spot.

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3. The apparatus of claim 2, wherein the memory can pre-store a second setting of the at least one motor that provides a normal viewing position of the mirror, wherein the detection signal from the object detector is used to toggle the mirror between the normal and blind spot viewing positions depending on whether an object  
10 is detected in the blind spot of the vehicle.

4. The apparatus of claim 1, wherein the memory can pre-store normal and blind spot viewing position of the mirror for more than one driver.

15 5. The apparatus of claim 1, wherein the object detector can detect a position of an object within the blind spot of the vehicle and provide a position signal for the at least one motor to adjust the position of the mirror to track the object.

20 6. The apparatus of claim 1, further comprising a viewing position detector that can detect a viewing position of a driver, wherein, when an object is detected in the vehicle blind spot by the object detector, the viewing position detector can provide a control signal to the at least one motor to adjust the position of the mirror to maintain the vehicle blind spot within a driver's view.

7. The apparatus of claim 6, wherein the viewing position detector detects a position of at least one of the group consisting of a driver's head and a driver's eyes.

8. The apparatus of claim 1, further comprising a viewing position detector that  
5 can detect a viewing position of a driver, wherein the object detector can detect a position of an object within the blind spot of the vehicle, and wherein, when an object is detected in the vehicle blind spot by the object detector, the viewing position detector and object detector can provide individual control signals to the at least one  
10 motor to adjust the position of the mirror to maintain the object that is in the vehicle blind spot within the driver's view.

9. A motor vehicle having an apparatus to observe objects in a visual blind spot of a vehicle, the motor vehicle comprising: ✓

a side view mirror;

at least one motor mechanically coupled to the side view mirror, wherein a

5 position of the side view mirror can be adjusted by the at least one motor;

a controller for controlling the at least one motor; and

an object detector that can detect objects within a visual blind spot of a vehicle,

wherein the object detector is operable to provide a detection signal to the

controller; wherein the controller provides a control signal to at least one

10 motor to adjust a position of the side view mirror to provide a view of the

blind spot of the vehicle to a driver of the vehicle.

10. The vehicle of claim 9, further comprising a memory that can pre-store a first setting of the at least one motor that provides a position of the side view mirror giving a view of the blind spot and a second setting of the at least one motor that provides a normal viewing position of the side view mirror, wherein the detection signal from the object detector is used by the controller to send a control signal to the at least one motor to toggle the side view mirror between the normal and blind spot viewing positions depending on whether an object is detected in the blind spot of the vehicle.

11. The vehicle of claim 9, wherein the memory can pre-store normal and blind spot viewing position of the side view mirror for more than one driver.

12. The vehicle of claim 9, wherein the object detector can detect a position of an object within the blind spot of the vehicle and provide a position signal to the at least one motor to adjust the position of the side view mirror to track the object.

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13. The vehicle of claim 9, further comprising a viewing position detector that can detect a viewing position of a driver, wherein, when an object is detected in the vehicle blind spot by the object detector, the viewing position detector can provide a control signal to the controller for use in controlling the at least one motor to adjust the position of the side view mirror to maintain the vehicle blind spot within the driver's view.

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14. The vehicle of claim 13, wherein the viewing position detector detects a position of at least one of the group consisting of a driver's head and a driver's eyes.

15. The vehicle of claim 9, further comprising a viewing position detector that can detect a viewing position of a driver, wherein the object detector can detect a position of an object within the blind spot of the vehicle, and wherein, when an object is
- 5 detected in the vehicle blind spot by the object detector, the viewing position detector and object detector can provide individual control signals to the controller for controlling the at least one motor to adjust the position of the side view mirror to maintain the object that is in the vehicle blind spot within the driver's view.

16. A method of viewing an object in a blind spot of a motor vehicle using a mirror, the method comprising the steps of:

- detecting an object within a visual blind spot of a vehicle;
- providing a detection signal; and
- 5     adjusting a position of the mirror in response to the detection signal to provide a view of the blind spot of the vehicle to a driver of the vehicle.

17. The method of claim 16, further comprising a step of storing a first setting of at least one motor coupled to the mirror that provides a first position of the mirror giving a view of the blind spot and a second setting of the at least one motor that provides a second viewing position of the mirror, wherein the adjusting step includes  
5 toggling the side view mirror between the first and second viewing positions depending on the detection signal from the providing step.

18. The method of claim 16, wherein the detecting step an object step includes detecting a position of an object within the blind spot of the vehicle, and the providing  
10 step includes providing a position signal, and the adjusting step includes adjust the position of the mirror to track the object in response to the position signal.

19. The method of claim 16, further comprising the steps of detecting a viewing position of a driver and providing a viewing position signal, wherein the adjusting  
15 step includes adjusting the position of the mirror to maintain the vehicle blind spot within the driver's view in response to the viewing position signal from the step of providing a viewing position signal.

20. The method of claim 16, further comprising the steps of detecting a viewing  
20 position of a driver and providing a viewing position signal, wherein the detecting an object step includes detecting a position of an object within the blind spot of the vehicle, and the providing step includes providing an object position signal, and wherein the adjusting step includes adjust the position of the mirror to track the object in the visual blind spot in response to the position signal and the viewing position  
25 signal from the respective providing steps.